

Health promotion support for mothers of children with hearing loss in 2016

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KEY WORDS

health promotion, mothers of children with hearing loss, physical therapy

Introduction

The Ministry of Education, Culture, Sports, Science and Technology in Japan has introduced what is named the "Center of Community (COC) " Project¹⁾. Through their participation in this, Kanazawa University is contributing to the local community, and training students to have a wider interest in society and encouraging them to play an active role in their local community. We carried out a project²⁾, "A Transformative learning experience for physical therapy students through a community health promotion project for mothers of children with hearing loss", which was one of the Kanazawa University COC Projects in 2015.

In Ishikawa Prefecture, cars are often used for transportation. Furthermore, the mothers also have to drive accompanying and transporting their children to/from hospitals for consultation/treatment. With the increased time driving, and the decline in physical activity in daily life we expected the mother's physical fitness to decrease. Although the mothers' physical fitness levels were within normal range, as measured by a simple fitness test recommended by The Ministry of Education, Culture, Sports, Science and Technology, the mothers had a history of lumbago. The mother not only spent time doing housework, but also planned and executed a daily assignment for her child, appropriate for the development of his/her language skills, in addition to recording the child's progress. The mothers had little time for their personal mental or physical well-being because of their busy daily schedule. Accordingly, we planned the exercise program for the mothers' relaxation and to

increase interaction between mothers, children and our students²⁾. This project was a means of introducing to the physical therapy students health promotion within a community.

In our project of last year, these opinions were given by the students after we all played together 1) "When we played with the children the mothers concentrated on their exercises and were able to receive feedback from the instructor", 2) "We think the mothers should be first instructed on the exercise program without the children there"²⁾. This would be possible if we separated the children from the mothers after playing together with us and the mothers would be more relaxed and could focus more easily on the exercises.

Therefore, for the current project, we developed a program to provide the environment that led to the mothers' greater attention to her exercise instruction without distraction.

Contents of the project

This project consisted of two sessions. Informed consent was obtained from the mothers, as they are the project's participants, and the project was approved by the Kanazawa University Medical Ethics Review Board (Approval No. 698) .

Day1

An assessment of the mother's health status and an interview with each of them took place on the first day. The participants were ten mothers with their respective children with hearing loss, eleven physical therapy students and a physical therapy instructor. The

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Table 1. Students' opinions on the assessment and their impressions about the mothers and children

On Students' Assessment and environment
<ul style="list-style-type: none"> • There had been wait time while the physical fitness tests were conducted, but it became the mothers' break time. I thought we do not necessarily have to perform each assessment continuously. • Though I was nervous about whether I could talk well with a mother, I could listen to a story of her lifestyle. • The playing area for children was small. Children looked like they will collide into each other, so I thought it was dangerous. • Even if there were not a lot of toys, we had various ways of playing depending on our imagination.
On Mothers
<ul style="list-style-type: none"> • The mother made a favorable environment for our explanation while chatting with her child. She also performed the physical fitness test happily. • I felt it was really good that the mother praised her child a lot. • At first the mother was worried about her child and called to her child during the physical fitness test, but she concentrated on the test when her child was absorbed to playing.
On Children
<ul style="list-style-type: none"> • Initially, children were inseparable from mothers, but from the middle, they played with the students and other children together and looked like they were having fun. • When the child was held by his mother, he looked very glad. • Because the children's had an interest in unfamiliar things I wish there were more things to play with.

Table 2. Mothers' impressions about their own physical condition after the physical fitness test

<ul style="list-style-type: none"> • I was able to move my body more than I thought. • I was not able to move my body as expected. I want time to regularly get physical activity. • I moved my body for a while and gained fresh energy. • I sometimes move my body with my child, but I got tired by the upper body raising and the standing on one leg that was the physical fitness test. • I was not tired, but my body did not catch up during the physical fitness test. • I am not usually active, so I was out of breath from the physical fitness test. • I was tired after the physical fitness test. • I was shocked because I almost could not keep standing on one leg with closed eyes. • The physical fitness test was not so difficult for me. • I will have more opportunity to move my body when time for it is set aside, as it was today.
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participants were trained to use the *Kanazawa Method*³⁾, which is one of the teaching methods to encourage speech development of children with hearing loss. Currently, a home work training system is recommended in the children's infantile period. The children's parents come to a hospital, and the speech-language-hearing therapist (ST) gives instruction on how to practice the homework training with their children, and also how to have informal conversation with them.

The participants were in their 30s-40s, and the children were from 2 years old to 5 years old. A pair of students administered the physical fitness test to the mothers and interviewed them about their lifestyle²⁾. The assessment was supervised throughout by the physical therapy instructor. During the assessment process the child either stayed in close proximity to the mother or played with the students. The mothers' physical activity in the daytime at home was measured by an activity monitor incorporating a triaxial accelerometer (Activity Style Pro HJA-750C; Omron Healthcare, Kyoto, Japan)⁴⁾ for one week after the day of the assessment.

Day2

The participants were the ten mothers and the physical therapy instructor. Some mothers came with their child. On Day 2, the mother and the instructor worked together one-to-one. The assessment intervals between Day1 and Day2 were from 1 to 28 days. The instructor explained the results of the physical fitness test to the mother and interviewed her about how she helped her child with the language development program and the child's progress as he used the program. Then the instructor assessed the mothers' posture and gave simple advice about appropriate posture.

Results

The following results were obtained in the project.

- 1) The people of the different generations, the mothers, children, and physical therapy students gathered and interacted for education about health promotion.
- 2) Students learned to assess the mothers' health status by giving a physical fitness test and through

interaction with the mothers and children. Table 1 shows the students' opinion given after the assessment of the mothers' health status.

- 3) The mothers reflected on their own physical fitness and about their daily training of their children's language skills. There were various thoughts. Table 2 shows part of the interviews with the mothers.
- 4) A variety of practical issues and challenges came to light, such as, what kind of support a physical therapist should give to a mother to live a healthier life. The general physical fitness of the mothers was within the normal range and their physical activities were roughly suitable for their ages (30s-40s). However, most of them presented with posture that showed the effect of physically heavy burdens on the lower back, and some of them answered that they sometimes felt shoulder stiffness and low back pain. Improvement of the current habitual posture is desirable to prevent shoulder stiffness and lower back pain. It will be a future challenge to teach mothers home exercises for desirable posture despite how busy they are in daily life.

Prospects for the future

We would like to provide the opportunity regularly for mothers to confirm their physical fitness and physical activity. If the frequency is annual or every other year, even a busy mother would be able to participate in our program. We also hope to plan our program for caregivers overall.

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